

Gunter, Jason

From: Seabourne, Rocky <rseabourne@doerun.com>
Sent: Thursday, February 25, 2016 9:18 AM
To: 'brandon.wiles@dnr.mo.gov'; Gunter, Jason; Montgomery, Michael; Neaville, Chris; Ty Morris; Yingling, Mark
Subject: Emailing: Leadwood Monthly Progress report Jan. 2016
Attachments: Leadwood Monthly Progress report Jan. 2016.pdf; 2016-01-10 LW NPDES Pace Lab Report.pdf

Your message is ready to be sent with the following file or link attachments:

Leadwood Monthly Progress report Jan. 2016

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**THE
DOE RUN
COMPANY**

Remediation Group

Rocky Seabourne
General Supervisor Land and Remediation
rseabourne@doerun.com

February 10, 2016

Mr. Jason Gunter
Remedial Project Manager
U.S. Environmental Protection Agency
Region 7 - Superfund Branch
11201 Renner Blvd.
Lenexa, KS 66219

Re: The Doe Run Company - Leadwood Mine Tailings Site Monthly Progress Report

Dear Mr. Gunter:

As required by Article VI, Section 50 of the Unilateral Administrative Order (Docket No. CERCLA-07-2006-0272) for the referenced project and on behalf of The Doe Run Company, the progress report for the period January 1, 2016 through January 31, 2016 is enclosed. If you have any questions or comments, please call me at 573-244-8136.

Sincerely,



Rocky Seabourne
General Supervisor Land and Remediation

Enclosures

- c: Mark Yingling – TDRC (electronic only)
- Chris Neaville – TDRC (electronic only)
- Michael Montgomery – TDRC (electronic only)
- Brandon Wiles – MDNR
- Ty Morris – Barr Engineering

Leadwood Mine Tailings Site
Leadwood, Missouri
Removal Action - Monthly Progress Report
Period: January 1, 2016 – January 31, 2016

- 1. Actions Performed or Completed This Period:**
 - a. Work continued on the development of the Post Removal Site Control Plan for the site.
- 2. Data and Results Received This Period:**
 - a. During this period, water samples were collected from downstream of Leadwood Dam and the East Seep and Erosion Area, as well as from upstream and downstream of the confluence of Eaton Creek with Big River. The analytical results for this event are included with this progress report.
- 3. Scheduled Activities not Completed This Period:**
 - a. None.
- 4. Planned Activities for Next Period:**
 - a. Finalize and submit the Post Removal Site Control Plan for the site.
 - b. Complete the water sampling activities.
- 5. Changes in Personnel:**
 - a. None.
- 6. Issues or Problems Arising This Period:**
 - a. None.
- 7. Resolution of Issues or Problems Arising This Period:**
 - a. None.



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

January 20, 2016

Amy Sanders
The Doe Run Company
P. O. Box 500
Viburnum, MO 65566

RE: Project: NPDES (LEADWOOD)
Pace Project No.: 60211071

Dear Amy Sanders:

Enclosed are the analytical results for sample(s) received by the laboratory on January 13, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Church
jamie.church@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 15-016-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407

Utah Certification #: KS00021

Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60211071001	41748 / LEADWOOD DOWNSTREAM	Water	01/12/16 10:05	01/13/16 08:55
60211071002	41749 / LEADWOOD UPSTREAM	Water	01/12/16 09:48	01/13/16 08:55
60211071003	41750 / LEADWOOD 001	Water	01/12/16 09:31	01/13/16 08:55
60211071004	41751 / LEADWOOD 002	Water	01/12/16 09:14	01/13/16 08:55

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SAMPLE ANALYTE COUNT

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60211071001	41748 / LEADWOOD DOWNSTREAM	EPA 200.7	SMW	6	PASI-K
		EPA 200.7	ZBM	3	PASI-K
		SM 2540D	LJS	1	PASI-K
		EPA 300.0	RAB	1	PASI-K
60211071002	41749 / LEADWOOD UPSTREAM	EPA 200.7	SMW	6	PASI-K
		EPA 200.7	ZBM	3	PASI-K
		SM 2540D	LJS	1	PASI-K
		EPA 300.0	RAB	1	PASI-K
60211071003	41750 / LEADWOOD 001	EPA 200.7	SMW	3	PASI-K
		SM 2540D	LJS	1	PASI-K
		SM 2540F	LJS	1	PASI-K
		EPA 300.0	RAB	1	PASI-K
60211071004	41751 / LEADWOOD 002	EPA 200.7	SMW	3	PASI-K
		SM 2540D	LJS	1	PASI-K
		SM 2540F	LJS	1	PASI-K
		EPA 300.0	RAB	1	PASI-K

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ANALYTICAL RESULTS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Sample: 41748 / LEADWOOD **Lab ID: 60211071001** Collected: 01/12/16 10:05 Received: 01/13/16 08:55 Matrix: Water
DOWNSTREAM

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium	<0.56	ug/L	5.0	0.56	1	01/14/16 09:45	01/14/16 17:09	7440-43-9	
Calcium	31400	ug/L	100	5.2	1	01/14/16 09:45	01/14/16 17:09	7440-70-2	
Lead	<1.9	ug/L	5.0	1.9	1	01/14/16 09:45	01/14/16 17:09	7439-92-1	
Magnesium	18400	ug/L	50.0	13.3	1	01/14/16 09:45	01/14/16 17:09	7439-95-4	
Total Hardness by 2340B	154000	ug/L	500		1	01/14/16 09:45	01/14/16 17:09		
Zinc	43.2J	ug/L	50.0	2.6	1	01/14/16 09:45	01/14/16 17:09	7440-66-6	
200.7 Metals, Dissolved (LF) Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium, Dissolved	<0.56	ug/L	5.0	0.56	1	01/19/16 09:00	01/19/16 16:17	7440-43-9	
Lead, Dissolved	<1.9	ug/L	5.0	1.9	1	01/19/16 09:00	01/19/16 16:17	7439-92-1	
Zinc, Dissolved	45.8J	ug/L	50.0	2.6	1	01/19/16 09:00	01/19/16 16:17	7440-66-6	
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		01/14/16 13:25		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	19.5	mg/L	2.0	0.47	2		01/14/16 11:33	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Sample: 41749 / LEADWOOD **Lab ID: 60211071002** Collected: 01/12/16 09:48 Received: 01/13/16 08:55 Matrix: Water
UPSTREAM

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium	<0.56	ug/L	5.0	0.56	1	01/14/16 09:45	01/14/16 17:13	7440-43-9	
Calcium	30000	ug/L	100	5.2	1	01/14/16 09:45	01/14/16 17:13	7440-70-2	
Lead	<1.9	ug/L	5.0	1.9	1	01/14/16 09:45	01/14/16 17:13	7439-92-1	
Magnesium	18100	ug/L	50.0	13.3	1	01/14/16 09:45	01/14/16 17:13	7439-95-4	
Total Hardness by 2340B	150000	ug/L	500		1	01/14/16 09:45	01/14/16 17:13		
Zinc	<2.6	ug/L	50.0	2.6	1	01/14/16 09:45	01/14/16 17:13	7440-66-6	
200.7 Metals, Dissolved (LF) Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium, Dissolved	<0.56	ug/L	5.0	0.56	1	01/19/16 09:00	01/19/16 16:19	7440-43-9	
Lead, Dissolved	<1.9	ug/L	5.0	1.9	1	01/19/16 09:00	01/19/16 16:19	7439-92-1	
Zinc, Dissolved	3.1J	ug/L	50.0	2.6	1	01/19/16 09:00	01/19/16 16:19	7440-66-6	
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		01/14/16 13:25		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	13.3	mg/L	1.0	0.24	1		01/14/16 12:25	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Sample: 41750 / LEADWOOD 001 Lab ID: 60211071003 Collected: 01/12/16 09:31 Received: 01/13/16 08:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium	3.8J	ug/L	5.0	0.56	1	01/14/16 09:45	01/14/16 17:15	7440-43-9	
Lead	6.6	ug/L	5.0	1.9	1	01/14/16 09:45	01/14/16 17:15	7439-92-1	
Zinc	2850	ug/L	50.0	2.6	1	01/14/16 09:45	01/14/16 17:15	7440-66-6	
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		01/14/16 13:26		
2540F Total Settleable Solids Analytical Method: SM 2540F									
Total Settleable Solids	<0.20	mL/L/hr	0.20	0.20	1		01/13/16 13:00		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	223	mg/L	25.0	5.9	25		01/14/16 12:42	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Sample: 41751 / LEADWOOD 002 Lab ID: 60211071004 Collected: 01/12/16 09:14 Received: 01/13/16 08:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	6.6	ug/L	5.0	0.56	1	01/14/16 09:45	01/14/16 17:18	7440-43-9	
Lead	24.3	ug/L	5.0	1.9	1	01/14/16 09:45	01/14/16 17:18	7439-92-1	
Zinc	5380	ug/L	50.0	2.6	1	01/14/16 09:45	01/14/16 17:18	7440-66-6	
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		01/14/16 13:26		
2540F Total Settleable Solids		Analytical Method: SM 2540F							
Total Settleable Solids	<0.20	mL/L/hr	0.20	0.20	1		01/13/16 13:00		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	360	mg/L	25.0	5.9	25		01/14/16 12:59	14808-79-8	

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Date: 01/20/2016 04:34 PM

Page 8 of 16

QUALITY CONTROL DATA

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

QC Batch: MPRP/34586

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Metals, Total

Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

METHOD BLANK: 1696880

Matrix: Water

Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	ug/L	<0.56	5.0	0.56	01/14/16 16:55	
Calcium	ug/L	10.0J	100	5.2	01/14/16 16:55	
Lead	ug/L	<1.9	5.0	1.9	01/14/16 16:55	
Magnesium	ug/L	<13.3	50.0	13.3	01/14/16 16:55	
Total Hardness by 2340B	ug/L	34.1J	500		01/14/16 16:55	
Zinc	ug/L	<2.6	50.0	2.6	01/14/16 16:55	

LABORATORY CONTROL SAMPLE: 1696881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	1000	1020	102	85-115	
Calcium	ug/L	10000	9740	97	85-115	
Lead	ug/L	1000	1000	100	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Total Hardness by 2340B	ug/L		65600			
Zinc	ug/L	1000	1020	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1696882 1696883

Parameter	Units	60211094001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Cadmium	ug/L	ND	1000	1000	1000	996	100	100	70-130	0	20
Calcium	ug/L	3.0 mg/L	10000	10000	12000	12000	91	90	70-130	1	20
Lead	ug/L	ND	1000	1000	956	956	95	95	70-130	0	20
Magnesium	ug/L	1.7 mg/L	10000	10000	11200	11200	94	94	70-130	0	20
Total Hardness by 2340B	ug/L	14.6 mg/L			76100	75900				0	
Zinc	ug/L	1.0 mg/L	1000	1000	2000	1960	97	94	70-130	2	20

MATRIX SPIKE SAMPLE: 1696884

Parameter	Units	60211071001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	<0.56	1000	937	94	70-130	
Calcium	ug/L	31400	10000	39800	84	70-130	
Lead	ug/L	<1.9	1000	925	92	70-130	
Magnesium	ug/L	18400	10000	27500	91	70-130	
Total Hardness by 2340B	ug/L	154000		213000			
Zinc	ug/L	43.2J	1000	974	93	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

QC Batch: MPRP/34645

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Metals, Dissolved

Associated Lab Samples: 60211071001, 60211071002

METHOD BLANK: 1698913

Matrix: Water

Associated Lab Samples: 60211071001, 60211071002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium, Dissolved	ug/L	<0.56	5.0	0.56	01/19/16 15:37	
Lead, Dissolved	ug/L	<1.9	5.0	1.9	01/19/16 15:37	
Zinc, Dissolved	ug/L	<2.6	50.0	2.6	01/19/16 15:37	

LABORATORY CONTROL SAMPLE: 1698914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	1000	925	92	85-115	
Lead, Dissolved	ug/L	1000	929	93	85-115	
Zinc, Dissolved	ug/L	1000	915	91	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1698915 1698916

Parameter	Units	60211040002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Cadmium, Dissolved	ug/L	1.1J	1000	1000	926	932	93	93	70-130	1	20
Lead, Dissolved	ug/L	<1.9	1000	1000	920	922	92	92	70-130	0	20
Zinc, Dissolved	ug/L	5.8J	1000	1000	905	908	90	90	70-130	0	20

MATRIX SPIKE SAMPLE: 1698917

Parameter	Units	60211068001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	0.59J	1000	971	97	70-130	
Lead, Dissolved	ug/L	6.0	1000	962	96	70-130	
Zinc, Dissolved	ug/L	234	1000	1150	92	70-130	

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QUALITY CONTROL DATA

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

QC Batch: WET/59561

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

METHOD BLANK: 1697206

Matrix: Water

Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<5.0	5.0	5.0	01/14/16 13:18	

SAMPLE DUPLICATE: 1697207

Parameter	Units	60211125001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	30.0	33.0	10	10	

SAMPLE DUPLICATE: 1697208

Parameter	Units	60211070002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	<5.0	<5.0		10	

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QUALITY CONTROL DATA

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

QC Batch: WETA/37725 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

METHOD BLANK: 1697110 Matrix: Water
Associated Lab Samples: 60211071001, 60211071002, 60211071003, 60211071004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	<0.24	1.0	0.24	01/14/16 08:10	

LABORATORY CONTROL SAMPLE: 1697111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1697112 1697113

Parameter	Units	60211071001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	19.5	10	10	28.3	28.4	88	89	80-120	0	15

MATRIX SPIKE SAMPLE: 1697114

Parameter	Units	60211078001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	111	50	155	89	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES (LEADWOOD)

Pace Project No.: 60211071

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60211071001	41748 / LEADWOOD DOWNSTREAM	EPA 200.7	MPRP/34586	EPA 200.7	ICP/25371
60211071002	41749 / LEADWOOD UPSTREAM	EPA 200.7	MPRP/34586	EPA 200.7	ICP/25371
60211071003	41750 / LEADWOOD 001	EPA 200.7	MPRP/34586	EPA 200.7	ICP/25371
60211071004	41751 / LEADWOOD 002	EPA 200.7	MPRP/34586	EPA 200.7	ICP/25371
60211071001	41748 / LEADWOOD DOWNSTREAM	EPA 200.7	MPRP/34645	EPA 200.7	ICP/25406
60211071002	41749 / LEADWOOD UPSTREAM	EPA 200.7	MPRP/34645	EPA 200.7	ICP/25406
60211071001	41748 / LEADWOOD DOWNSTREAM	SM 2540D	WET/59561		
60211071002	41749 / LEADWOOD UPSTREAM	SM 2540D	WET/59561		
60211071003	41750 / LEADWOOD 001	SM 2540D	WET/59561		
60211071004	41751 / LEADWOOD 002	SM 2540D	WET/59561		
60211071003	41750 / LEADWOOD 001	SM 2540F	WET/59540		
60211071004	41751 / LEADWOOD 002	SM 2540F	WET/59540		
60211071001	41748 / LEADWOOD DOWNSTREAM	EPA 300.0	WETA/37725		
60211071002	41749 / LEADWOOD UPSTREAM	EPA 300.0	WETA/37725		
60211071003	41750 / LEADWOOD 001	EPA 300.0	WETA/37725		
60211071004	41751 / LEADWOOD 002	EPA 300.0	WETA/37725		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60211071



Client Name: DRC

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 7753 9401 2378 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☒ Other ☐

Thermometer Used: CF +0.8 T-239 CF +0.7 T-262

Type of Ice: Wet Blue ☐ None ☐ Samples received on ice, cooling process has begun. (circle one)

Cooler Temperature: 3.6

Date and initials of person examining contents: PV 1/13/16

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>S-S</u>
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Includes date/time/ID/analyses	Matrix: <u>WT</u>	15.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18.
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	19.
Pace Trip Blank lot # (if purchased):		20.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	21.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	22.
Additional labels attached to 5035A vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	23.

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Jami Church 1/13/16

Date: _____

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.